COLORADO DEPARTMENT OF TRANSPORTATION STAFF BRIDGE BRIDGE DESIGN MANUAL

Subsection: 19.6 Effective: July 1, 2012

Supersedes: New

Local Agency Projects, Developer Projects, & Access Permits

This subsection updates and supersedes the October 22, 1999 Staff Bridge Technical Memorandum addressing local agency project structure reviews and has been broadened to include developer projects and access permits.

19.6.1 General Services for All Local Agency Projects, Developer Projects, and Access Permits

For local agency projects, developer projects and access permits Staff Bridge shall provide technical assistance, when requested, to local agencies, developers, consultant design engineers, CDOT Regions, and FHWA. This assistance will involve answering specific questions and facilitating the use of CDOT structures related manuals, specifications, standard drawings, and worksheets. This assistance will be provided by the Staff Bridge PE II, or his or her designee, assigned to the Region where the project is located. This person will be the Staff Bridge representative for the project.

19.6.2 Local Agency and Developer Projects in CDOT ROW and Access Permits

The requirements in Subsection 19.1 of the CDOT Bridge Design Manual apply to any major structures constructed in CDOT ROW by a private or public entity other than CDOT. See 19.1.1E for details.

Staff Bridge will generally provide a quality assurance review of the structure plans and specifications to help ensure the Department's written minimum requirements for safety, inspection access, and geometry are satisfied and the new construction has no adverse impact on CDOT facilities. The Region may elect to hire a consultant engineer to perform this QA review on behalf of the Staff Bridge PE II.

Where the structure will eventually be either owned or maintained by CDOT the review will include helping to ensure that CDOT's written minimum requirements for structure durability are satisfied. Examples of these requirements include those related to corrosion protection and the use of bridge expansion devices. When CDOT performs the construction inspection a bridge construction review will be conducted with Staff Bridge as per CDOT Construction Manual 101.103.8.3.

A final design submittal (19.1.4E of the CDOT Bridge Design Manual), contractor drawings submittals (19.1.5C), and as constructed (as built) plans submittal (19.1.5D) are required. These documents are important for the Department's inventory of all major structures in CDOT ROW. In addition to bridges, major structures includes certain culverts, retaining walls, overhead signs, signals and high-mast-lights as described in 19.1.8. Unless directed otherwise, these submittals should be in electronic Adobe Acrobat (PDF) format. These are minimum requirements for the Department's structure inventory and the Region may have additional submittal requirements for structures.

The final design submittal includes design and independent design check calculations, a load rating package (for vehicular bridges), and certification by the engineer of record that the structure plans and specifications were prepared in accordance with CDOT's the current design standards. If the project is not advertised by CDOT, then a copy of the final bid documents (plans and specifications) shall also be submitted to Staff Bridge. The Staff

Bridge PE II assigned to the Region will issue a final details letter on receiving this submittal.

19.6.3 Local Agency Projects not in CDOT ROW

Staff Bridge will generally not provide a quality assurance review of the plans and specifications for local agency projects not in CDOT ROW. Staff Bridge will however look at specific details at the request of the Region as needed to provide technical assistance.

For major vehicle bridges it is strongly recommended that the same document submittals described in 19.6.2 (final design submittal including certification by engineer of record, bid plans and specifications, contractor drawing submittals, as-constructed plans) be submitted to Staff Bridge for archiving. CDOT maintains an inventory of all major vehicle bridges in the State of Colorado including those owned by local agencies. These documents will be archived in the inventory and made perpetually available to CDOT and local agency personnel and will facilitate national bridge inspection and inventory activities.

19.6.4 Fabrication Inspection

Staff Bridge shall provide fabrication inspection services when CDOT provides the construction engineering. The project must either participate in CDOT's construction pool or have a CDOT construction subaccount that can be charged for Staff Bridge's fabrication services.

19.6.5 Off-system Bridge Program

Staff Bridge administers the off-system bridge program. Project engineering support is as described here in 19.6. Program administrative support is as described in Section 11 of the CDOT BRIAR Manual.

19.6.6 Project Workhour Charges

Workhours by Staff Bridge personnel shall be charged to the cost center unless a CDOT project subaccount has been set up for engineering services. The construction pool should not be used for hours worked during the construction phase unless the project is participating in the construction pool.